

REMARKS

I. Introduction

In response to the pending Office Action, Applicants have amended claims 1-5, 8 and 9 to further clarify the subject matter of the invention and to correct inadvertent errors. No new matter has been added.

An RCE is being filed concurrently with this Amendment.

Applicants respectfully submit that all pending claims are patentable over the cited prior art for the reasons set forth below.

II. The Rejection Of Claims 1, 2 and 6-9 Under 35 U.S.C. § 102

Claims 1, 2 and 6-9 are rejected under 35 U.S.C. § 102(b) as being anticipated by Yamada et al. (US 2001/0000335). Applicants respectfully submit that Yamada fails to anticipate the pending claims for at least the following reasons.

With regard to the present invention, claims 1, 8 and 9 each recite, in-part, a phosphor element or display device having a phosphor layer with silicon fine particles, wherein at least a part of each surface of substantially all of the silicon fine particles is covered **with a conductive material film**.

One feature of the present invention is that the silicon fine particles are covered with a conductive material film. For example, in Figs. 1, 2, 5 and 6, the silicon particles 5, 15 are covered with a film 6, 16 comprised of conductive material. This feature of the present invention allows the particles to be equally distributed in the phosphor layer 3, which results in a more uniform emission of light.

In contrast to the present invention, Yamada fails to disclose this feature. It is alleged that Yamada teaches that at least a portion of the silicon fine particles is covered with a conductive material. However, Yamada discloses that the silicon ultrafine particles 14 are dispersed in a transparent medium 15 (see, Fig. 1B and paragraph 111 of Yamada). As is clear from the figures, the transparent medium 15 of Yamada is not equivalent to a conductive material film on the surface of the particles. Thus, Yamada does not disclose that the particles are covered with a conductive film, as recited in amended claims 1, 8 and 9.

As a result of this difference, the silicon particles of Yamada are unable to be equally distributed in the optoelectronic layer. As such, the device of Yamada does not exhibit the same superior characteristics as in the present invention.

Furthermore, the semiconductor device of Yamazaki is alleged to have a macroscopic planar conductive layer 115 made of a TiN metal (see, Fig. 5E and col. 13, line 59 – col. 14, line 14 of Yamazaki). However, Yamazaki fails to disclose a **film** covering the surface of the silicon particles. As is similarly discussed above with Yamada, the layer of Yamazaki, which is formed as a sheet on top of the structure, is not equivalent to a conductive material film on the surface of the particles. Kahen discloses an organic light emitting diode having a cathode layer 205 which also does not read upon the present invention which recites that a surface of silicon fine particles is covered with a conductive material film. As can be seen in Fig. 2, the layer 205 of Kahen is not equivalent to a conductive material film on the surface of the particles. Like in Yamazaki, the layer 205 of Kahen is formed in a sheet-like pattern over the electron-transport layer. As such, both Yamazaki and Kahen fail to teach the above featured limitations.

As the Examiner is aware, anticipation under 35 U.S.C. § 102 requires that each element of the claim in issue be found, either expressly described or under principles of inherency, in a single prior art reference, *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983). As Yamada, Yamazaki and Kahen, at a minimum, fail to disclose a phosphor element or display device having a phosphor layer with silicon fine particles, wherein at least a part of each surface of substantially all of the silicon fine particles is covered with a conductive material film, it is clear that Yamada, Yamazaki and Kahen fail to anticipate claims 1, 8 and 9. Therefore, it is respectfully requested that the rejection of claims 1, 8 and 9 under § 102 be withdrawn.

III. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claims 1, 8 and 9 are patentable for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

IV. Conclusion

Accordingly, it is urged that the application is in condition for allowance, an indication of which is respectfully solicited.

Application No.: 10/562,796

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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